

## MAKING

METHYL BROMIDE RULES  
MORE PROTECTIVE

SEPTEMBER 2003

REGULATIONS  
PROPOSED  
TO ENHANCE  
METHYL  
BROMIDE  
PROTECTIONS

*This fact sheet provides information about the increasingly strict controls that the California Department of Pesticide Regulation (DPR) has placed on methyl bromide use over the past decade, and describes the enhanced level of protection in proposed new regulations. These new controls include the first-ever geographic caps on methyl bromide use.*

WHAT RESTRICTIONS ARE THERE NOW  
ON METHYL BROMIDE USE?

Since 1992, prompted by concerns over possible health effects, DPR has implemented a series of progressively stronger restrictions on the agricultural use of methyl bromide, based on air monitoring, toxicological and other scientific data.

Most of these restrictions were discretionary permit conditions recommended by DPR that County Agricultural Commissioners interpreted based on local climate, crops, sensitive sites, and other variables. In 2001, DPR put into place regulations that required commissioners to “condition” methyl bromide permits based specifically on DPR’s instructions.

Among other things, the 2001 regulations:

- Set limits on the amount of acreage that could be fumigated in a single application;
- Set up a procedure to notify nearby residents of applications;
- Defined buffer zones around application sites;
- Restricted work hours for fumigation employees; and
- Put into place special protections around schools.

These controls, the strictest in the nation, were designed to protect fumigation workers and communities near methyl bromide application

sites from potential adverse health effects associated with **acute** (that is, short-term) exposure to methyl bromide off-gassing from treated fields. DPR officials realized that the new rules (like previous methyl bromide restrictions) might have to be modified after scientists completed their evaluation of longer-term exposures, that is, the effects of **subchronic**, seasonal exposure to workers and others over several weeks or months.

In 2002, the regulations were nullified when a judge ruled in a lawsuit that DPR did not follow the law and adequately consult with the Department of Food and Agriculture before noticing the regulations. However, with the approval of the court, DPR put the regulations back in place temporarily as emergency regulations to ensure continued protection of the health and safety of workers and the public. This gave the Department time to review new data and consult with other agencies, as required by the court.

At the same time, the Department settled another lawsuit by agreeing that when we developed new methyl bromide field fumigation regulations, we would consider whether stricter controls were needed to protect workers and communities against seasonal exposures.

PERMIT  
CONDITIONS ARE:

- **Restricted-use pesticides (like methyl bromide) require a permit from the County Agricultural Commissioner (CAC) before they can be possessed or applied. These permits are site- and time-specific. CACs can issue the permit subject to certain “conditions,” that is, require that certain use practices be followed to mitigate potential adverse effects.**

## WHAT DOES THE MOST RECENT SCIENTIFIC INFORMATION INDICATE?

Since the methyl bromide regulations were adopted in early 2001, additional air monitoring and toxicological data has become available to our scientists. The data indicate that there is no imminent health hazard to communities from seasonal exposures to methyl bromide.

The new data allowed DPR to fine-tune its risk assessment of methyl bromide and to craft *increased protections*. When the new regulations go into effect, California will become the first state to protect workers and the public against both acute (short-term) and subchronic (seasonal) exposures to methyl bromide.

## IF METHYL BROMIDE IS ONLY USED ONCE A YEAR ON A FIELD, WHY AREN'T SHORT-TERM CONTROLS ENOUGH?

Methyl bromide is a gaseous fumigant used to treat soil before planting of many crops. Depending on the crop, field applications may occur annually, or once every several years.

During the high-use period for methyl bromide in California — from August through October, with highest use occurring earlier or later in that period, depending on the region of the state — fumigation employees may work five to seven days a week over a four- to five-week period. Residents in high-use regions may live

or work near fields that treated one after another over a period of several weeks.

This seasonal exposure scenario is much longer than what would be considered short-term or acute. At the same time, it is significantly less than what is typically considered annual (chronic) exposure. DPR scientists refer to this intermediate-term exposure as subchronic or seasonal. The 2001 regulations were designed to protect against acute exposures, and new protections are needed against season-long exposures.

## HOW DO THE NEW RESTRICTIONS COMPARE TO THE OLD?

The restrictions put in place with the 2001 regulation package will continue under the new regulations, but will be strengthened with new measures that provide a greater level of protection. The previous restrictions were based on a target level of 210 ppb to protect against short-term exposure. The target level has been lowered to 9 ppb to add a new level of protection against seasonal exposures.

To accomplish this, the Department is proposing the nation's first geographic use caps on methyl bromide use. Under the proposed regulations, no single township could exceed total applications of 270,000 pounds in any month. (A township is a legally defined land surveying unit, 36 square miles.) This mitigation measure is designed to

prevent air levels from exceeding the target level, reducing any potential subchronic methyl bromide exposure hazards to the public including children.

In 2001 (the most recent year for which use data is available), a township whose borders straddle Monterey and Santa Cruz counties had the highest monthly methyl bromide use, 202,385 pounds. However, even at that use level, DPR scientists calculate the estimated average air concentration over that month would have been less than 5 ppb. Four other townships (in Ventura, Santa Barbara, and Monterey counties) had maximum monthly use of ranging from 104,603 to 176,181 pounds, which would result in an estimated seasonal air concentration ranging from 2.5 to 3.7 ppb.

### EXPOSURE DURATIONS

- **Acute exposure:**  
Short-term, over a day or so
- **Subchronic exposure:**  
Seasonal, over several weeks or months
- **Chronic exposure:**  
More than a year, or lifetime

## WHAT ABOUT BUFFER ZONES?

Another major change is that the buffer zones will be specified in regulation. Under the old regulations, the buffer zones were advisory to the counties. DPR was free to change the guidance to the Commissioners without public review or input.

Putting buffer zone distances and durations into regulation means that, in the future, DPR will follow the formal rulemaking process to make any changes. The Commissioners will still be free to set stricter rules, based on local conditions.

## ARE THERE ANY CHANGES IN WORKER PROTECTION?

Yes, worker protection rules have been enhanced. The new measures are designed to reduce possible subchronic exposure of workers to the target level of 16 ppb or less. Among the changes proposed is a clarification of which fumigation workers are covered by the restrictions to ensure that it encompasses not only applicators, but also equipment handlers, shovelers (employees that cover tarpaulin edges with soil at the end of the

treatment rows), and those involved in tarp cutting, maintenance and removal.

Maximum work hours in a 24-hour period during a calendar month are clearly specified in the regulations, and they vary depending on the application method used. The hours for some activities may be increased if the application rate is less than the maximum or if proper respiratory protection is worn.

The Department has one year from when it notices proposed regulations to complete the process. We expect that the methyl bromide regulations will take less time.

## WHAT'S INVOLVED IN GETTING REGULATIONS IN PLACE?

The methyl bromide regulations will be formally noticed in late September by being published by the Office of Administrative Law. They are also posted on DPR's Web site. Anyone may submit written comments (via letter, e-mail or fax) on all or part of the proposed regulations. Oral comments may be submitted at three public hearings the Department is having on the regulations.

After the comment period closes November 18, 2003, DPR will review all comments and may revise the regulations accordingly. The Department's goal is to protect worker and

public health; however, we also recognize that alternative methods of accomplishing this goal may be suggested by commenters and may be equally effective. Should the regulations be revised substantially, they will be noticed again for comment.

For more information, read DPR's handout, *The Rulemaking Process: How You Can Get Involved in Regulatory Decisionmaking*. The handout can be downloaded from our Web site, [www.cdpr.ca.gov](http://www.cdpr.ca.gov), or you can call 916-445-3974 to have a copy sent to you.

## WHERE CAN I READ THE PROPOSED REGULATIONS?

You can view or download a copy of the proposed methyl bromide regulations on DPR's Web site, [www.cdpr.ca.gov](http://www.cdpr.ca.gov), clicking on the "Laws and Regulations" page. You can also submit e-mail comments on that page. For more information, contact Linda Irokawa-

Otani, 916-445-4300, [lotani@cdpr.ca.gov](mailto:lotani@cdpr.ca.gov). If you want a copy of the proposed regulations mailed to you, call or write Regulations Coordinator, Department of Pesticide Regulation, 1001 I Street, P.O. Box 4015, Sacramento, CA 95812, 916-445-4300.

## HOW CAN I COMMENT ON THE PROPOSED REGULATIONS?

You can mail written comments to Linda Irokawa-Otani, California Department of Pesticide Regulation, 1001 I Street, P.O. Box 4015, Sacramento, CA 95812, or fax them to 916-324-1452.

E-mail comments can be submitted to <dpr03004@cdpr.ca.gov>.

All comments are due by November 18, 2003. You may comment on all or any part of the regulations.

## WHAT ABOUT PUBLIC HEARINGS?

To ensure all comments are heard, DPR has scheduled three public hearings on the proposed methyl bromide regulations:

**Sacramento:** 1 p.m., November 14, 2003  
Coastal Hearing Room  
Cal/EPA Headquarters Bldg.  
1001 I St.  
*Will be preceded by a 10 a.m. informational workshop*

**Ventura:** 1 p.m., November 15, 2003  
Gem and Mineral Bldg.  
Seaside Park  
10 West Harbor Blvd.

**Salinas:** 6 p.m., November 17, 2003  
Sherwood Hall  
Salinas Community Center  
950 North Main Street

Anyone may testify at the hearings. You may also submit written comments there. Oral

comments presented at a hearing carry no more weight than written comments.

If you wish to speak, you will be asked to fill out a public comment card. Generally, registered persons will be heard in the order of their registration. Any other person who wishes to speak at the hearing will be given the opportunity to do so after the registered persons have been heard. You can read from prepared comments or you can simply speak. You can arrange in advance to have a translator if you do not speak English.

Because many people may sign up to testify, there may be a limit on how much time you have to speak. If that is the case, it is important to try not to repeat previous testimony and to speak to the point. To ensure a fair allotment of time to all speakers, no one can give their time to another speaker.

DPR already has the nation's strictest controls on methyl bromide use. The new regulations will enhance these protections.

## WHERE CAN I GET MORE INFORMATION?

For more information, visit our Web site, [www.cdpr.ca.gov](http://www.cdpr.ca.gov), click on "Laws and Regulations," "DPR Regulations," then "Proposed Regulations." For copies of this and other handouts about the regulations, go to the "Programs and Services" section

of the Web site, and then select "Methyl Bromide and Other Fumigants."

You can also contact Linda Irokawa-Otani, DPR Regulations Coordinator, 916-445-4300, [lotani@cdpr.ca.gov](mailto:lotani@cdpr.ca.gov).

## ABOUT THE DEPARTMENT OF PESTICIDE REGULATION

The California Department of Pesticide Regulation (DPR) protects human health and the environment by regulating pesticide sales and use and by fostering reduced-risk pest management. DPR's strict oversight includes product evaluation and registration, environmental monitoring, residue testing of fresh produce, and local use enforcement through the county agricultural commissioners. DPR is one of six boards and departments within the California Environmental Protection Agency.

